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L121 ANSWER_1_OF_13 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:809799 HCAPLUS Full-text

DN 139:319665

TI Development of simultaneous and fractional quantitative analysis of peracetic acid and hydrogen peroxide by continuous oxidation reduction potentiometry

IN Asa, Kakutoshi; Osaka, Takeo; Mohamed, Isumairu Awado

PA Riko Kyosan K. K., Japan; Rikogaku Shinkokai

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

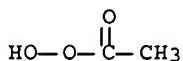
LA Japanese

FAN.CNT 1

	PATENT NO..	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003294694	A	20031015	JP 2002-102110	20020404 <--
	JP 3504939	B2	20040308		
	CA 2480874	A1	20031016	CA 2003-2480874	20030403 <--
	WO 2003085393	A1	20031016	WO 2003-JP4273	20030403 <--
	W: CA, CN, KR, US				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
	EP 1491885	A1	20041229	EP 2003-745897	20030403 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
	US 2005084978	A1	20050421	US 2003-509179	20030403 <--
PRAI	JP 2002-102110	A	20020404 <--		
	WO 2003-JP4273	W	20030403 <--		
AB	A method of simultaneous and fractional quantitation of peracetic acid and hydrogen peroxide by continuous anal. of change of oxidation reduction potential caused by the reaction with potassium iodide reagent (containing molybdate salt (Na, K, Ca or ammonium salt, 0.5 .apprx. 1 mmol/l), iodine (0.3				

.apprx. 2 mmol/l) and iodide ion (5 .apprx. 20 mmol/l)) in buffer solution (pH 5 .apprx. 6). Iodide generated by the reaction of constant potential electrolysis was designed to be measured by potentiometry using platinum , gold or carbon working electrode. Quantitation of peracetic acid and hydrogen peroxide by the developed potentiometry system has been demonstrated.

- IC ICM G01N0027-416
 ICS G01N0027-30; G01N0031-00; G01N0033-00
 CC 9-7 (Biochemical Methods)
 ST development simultaneous quant potentiometry peracetic acid hydrogen peroxide
 IT Electrolysis
 (constant potential electrolysis; development of simultaneous and fractional quant. anal. of peracetic acid and hydrogen peroxide by continuous oxidation reduction potentiometry)
 IT Potentiometry
 (development of simultaneous and fractional quant. anal. of peracetic acid and hydrogen peroxide by continuous oxidation reduction potentiometry)
 IT 79-21-0, Peracetic acid 7722-84-1,
 Hydrogen peroxide, analysis
 RL: ANT (Analyte); ANST (Analytical study)
 (development of simultaneous and fractional quant. anal. of peracetic acid and hydrogen peroxide by continuous oxidation reduction potentiometry)
 IT 7681-11-0, Potassium iodide, uses
 11116-47-5, Molybdate
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (development of simultaneous and fractional quant. anal. of peracetic acid and hydrogen peroxide by continuous oxidation reduction potentiometry)
 IT 7440-44-0, Glassy Carbon, uses
 RL: DEV (Device component use); USES (Uses)
 (glassy, use in electrode; development of simultaneous and fractional quant. anal. of peracetic acid and hydrogen peroxide by continuous oxidation reduction potentiometry)
 IT 7440-06-4, Platinum, uses 7440-57-5,
 Gold, uses
 RL: DEV (Device component use); USES (Uses)
 (use in electrode; development of simultaneous and fractional quant. anal. of peracetic acid and hydrogen peroxide by continuous oxidation reduction potentiometry)
 IT 79-21-0, Peracetic acid 7722-84-1,
 Hydrogen peroxide, analysis
 RL: ANT (Analyte); ANST (Analytical study)
 (development of simultaneous and fractional quant. anal. of peracetic acid and hydrogen peroxide by continuous oxidation reduction potentiometry)
 RN 79-21-0 HCAPLUS
 CN Ethaneperoxoic acid (CA INDEX NAME)



CN Hydrogen peroxide (H₂O₂) (CA INDEX NAME)

HO—OH

IT 7681-11-0, Potassium iodide, uses
 11116-47-5, Molybdate
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (development of simultaneous and fractional quant. anal. of peracetic acid and hydrogen peroxide by continuous oxidation reduction potentiometry)
 RN 7681-11-0 HCPLUS
 CN Potassium iodide (KI) (CA INDEX NAME)

I-K

RN 11116-47-5 HCPLUS
 CN Molybdate (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 IT 7440-44-0, Glassy Carbon, uses
 RL: DEV (Device component use); USES (Uses)
 (glassy, use in electrode; development of simultaneous and fractional quant. anal. of peracetic acid and hydrogen peroxide by continuous oxidation reduction potentiometry)
 RN 7440-44-0 HCPLUS
 CN Carbon (CA INDEX NAME)

C

IT 7440-06-4, Platinum, uses 7440-57-5,
 Gold, uses
 RL: DEV (Device component use); USES (Uses)
 (use in electrode; development of simultaneous and fractional quant. anal. of peracetic acid and hydrogen peroxide by continuous oxidation reduction potentiometry)
 RN 7440-06-4 HCPLUS
 CN Platinum (CA INDEX NAME)

Pt

RN 7440-57-5 HCPLUS
 CN Gold (CA INDEX NAME)

Au

L121 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:31516 HCAPLUS Full-text

DN 132:72974

TI Electrochemical cell with nonporous or microporous silicon membrane separator for aggressive medium

IN Reiss, Gerhard

PA Germany

SO Ger. Offen., 6 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19830205	A1	20000113	DE 1998-19830205	19980707 <--
PRAI DE 1998-19830205		19980707	<--	

AB An electrochem. measurement cell for use in aggressive media consists of an inner electrode and an electrolyte-containing chamber, in which a non-porous or microporous silicon membrane separates the electrolyte chamber from the measuring fluid. The membrane is 0.05-1.0 mm (preferably 0.125-0.250 mm) thick. The silicon membrane is supported on a supporting ring or support material, fabricated as a gauze or a fabric. The electrolyte preferably is composed of a buffer solution (at pH 4), KI, and ammonium molybdate tetrahydrate. The cell is especially useful for determination of chlorine, chlorine dioxide, ozone, hydrogen peroxide, or peracetic acid solns.

IC ICM G01N0027-403

ICS G01N0027-30; G01N0027-40

CC 79-2 (Inorganic Analytical Chemistry)

ST electrochem cell silicon membrane separator; chlorine electrochem cell silicon membrane separator; peracetic acid electrochem cell silicon membrane separator; hydrogen peroxide electrochem cell silicon membrane separator

IT 79-21-0, Peracetic acid 7722-84-1,

Hydrogen peroxide, analysis 7782-50-5, Chlorine, analysis 10028-15-6, Ozone, analysis 10049-04-4, Chlorine dioxide

RL: ANT (Analyte); ANST (Analytical study)

(determination of; electrochem. cell with nonporous or microporous silicon membrane separator for aggressive medium)

IT 7681-11-0, Potassium iodide, uses

12054-85-2

RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)

(electrolyte containing; electrochem. cell with nonporous or microporous silicon membrane separator for aggressive medium)

IT 79-21-0, Peracetic acid 7722-84-1,

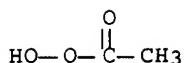
Hydrogen peroxide, analysis

RL: ANT (Analyte); ANST (Analytical study)

(determination of; electrochem. cell with nonporous or microporous silicon membrane separator for aggressive medium)

RN 79-21-0 HCAPLUS

CN Ethaneperoxoic acid (CA INDEX NAME)



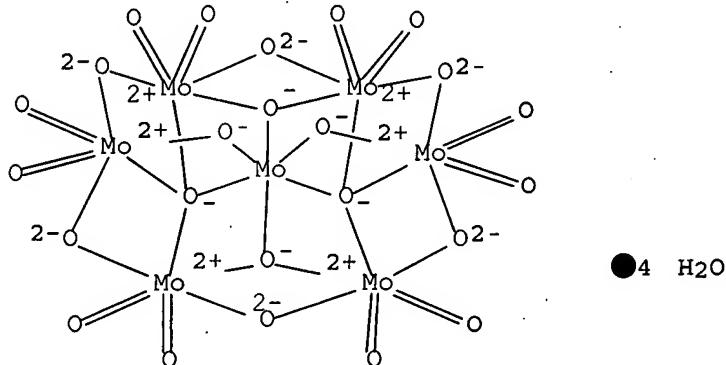
RN 7722-84-1 HCPLUS
 CN Hydrogen peroxide (H2O2) (CA INDEX NAME)



IT 7681-11-0, Potassium iodide, uses
 12054-85-2
 RL: ARG (Analytical reagent use); DEV (Device component use); ANST
 (Analytical study); USES (Uses)
 (electrolyte containing; electrochem. cell with nonporous or
 microporous silicon membrane separator for aggressive medium)
 RN 7681-11-0 HCPLUS
 CN Potassium iodide (KI) (CA INDEX NAME)

I-K

RN 12054-85-2 HCPLUS
 CN Molybdate (Mo70246-), ammonium, hydrate (1:6:4) (CA INDEX NAME)



●6 NH₄⁺

L121 ANSWER 3 OF E3) HCPLUS COPYRIGHT 2007 ACS on STN
 AN 1995:568517 HCPLUS Full-text
 DN 122:305558
 TI Electrochemical sensor for determination of peroxyacetic acid
 IN Kaden, Heiner; Hermann, Sigrun
 PA Forschungsinstitut "Kurt Schwabe" Meinsberg, Germany
 SO Ger. Offen., 8 pp.
 CODEN: GWXXBX

DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4319002	A1	19950223	DE 1993-4319002	19930608 <--
PRAI	DE 1993-4319002		19930608 <--		

AB Amperometric sensors were developed for selective determination of peroxyacetic acid in the presence of H₂O₂. They have Pt cathodes, Ag anodes (working simultaneously as Ag/AgCl reference electrodes), and polymer membranes over the cathodes. Polyamides, polyurethanes, or polyethylene terephthalate are used as membrane materials. Linear calibration graphs are observed for 0-3000 ppm peroxyacetic acid by using a p.d. = 125 mV in a pH 3.2 citrate buffer solution

IC ICM G01N0027-404

CC 80-2 (Organic Analytical Chemistry)
 Section cross-reference(s): 42, 72

ST amperometric sensor peroxyacetic acid detn

IT Polyamides, analysis

Polyesters, analysis

Polymers, analysis

Urethane polymers, analysis

RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)

(membranes; in amperometric sensors for determination of peroxyacetic acid)

IT Sensors

(amperometric, for determination of peroxyacetic acid)

IT 79-21-0, Peroxyacetic acid

RL: ANT (Analyte); PRP (Properties); ANST (Analytical study)

(amperometric sensors for determination of)

IT 7722-84-1, Hydrogen peroxide, analysis

RL: ARU (Analytical role, unclassified); ANST (Analytical study)

(amperometric sensors for determination of peroxyacetic acid in presence of)

IT 7440-22-4, Silver, analysis

RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)

(anodes; in amperometric sensors for determination of peroxyacetic acid)

IT 7440-06-4, Platinum, analysis

RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)

(cathodes; in amperometric sensors for determination of peroxyacetic acid)

IT 25038-59-9, Polyethylene terephthalate, analysis

RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)

(membranes; in amperometric sensors for determination of peroxyacetic acid)

IT 7783-90-6, Silver chloride (AgCl), analysis

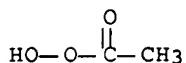
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)

(reference electrodes; in amperometric sensors for determination of peroxyacetic acid)

IT 79-21-0, Peroxyacetic acid

RL: ANT (Analyte); PRP (Properties); ANST (Analytical study)

(amperometric sensors for determination of)
 RN 79-21-0 HCPLUS
 CN Ethaneperoxoic acid (CA INDEX NAME)



IT 7722-84-1, Hydrogen peroxide, analysis
 RL: ARU (Analytical role, unclassified); ANST (Analytical study)
 (amperometric sensors for determination of peroxyacetic acid
 in presence of)
 RN 7722-84-1 HCPLUS
 CN Hydrogen peroxide (H2O2) (CA INDEX NAME)

HO—OH

IT 7440-06-4, Platinum, analysis
 RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
 (cathodes; in amperometric sensors for determination of peroxyacetic acid)
 RN 7440-06-4 HCPLUS
 CN Platinum (CA INDEX NAME)

Pt

L121 ANSWER 4 OF 13 HCPLUS COPYRIGHT 2007 ACS on STN

AN 1994:498764 HCPLUS Full-text

DN 121:98764

TI Fractional determination of peracetic acid and
 hydrogen peroxide

IN Machida, Yasushi; Hashimoto, Akihiro; Hirakuri, Katsuko

PA Nippon Peroxide Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

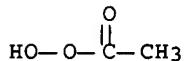
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06130051	A	19940513	JP 1992-303215	19921016 <--
	JP 3170526	B2	20010528		
PRAI	JP 1992-303215		19921016 <--		
AB	The title method, suited for use in fractional determination of peracetic acid and hydrogen peroxide in a mixture of peracetic acid, hydrogen peroxide and acetic acid, comprises: (1) adding a slight excess of aqueous KI solution relative to peracetic acid to the mixd. solution, and determining peracetic acid concentration by titration of released I using Na thiosulfate standard				

solution, and (2) adding a large excess of aqueous KI solution, dilute H₂SO₄, and aqueous ammonium molybdate solution, and determining hydrogen peroxide concentration by titration of further released I using standard Na thiosulfate solution

IC ICM G01N0031-16
 ICS G01N0031-00
 CC 79-6 (Inorganic Analytical Chemistry)
 Section cross-reference(s): 72
 ST peracetic acid detn potentiometric titrn;
 hydrogen peroxide detn potentiometric titrn;
 fractional titrn peracetic acid hydrogen peroxid
 IT 79-21-0, Peracetic acid 7722-84-1,
 Hydrogen peroxide, analysis
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in peracetic acid and hydrogen
 peroxide and acetic acid mixture by potentiometric
 titration)
 IT 79-21-0, Peracetic acid 7722-84-1,
 Hydrogen peroxide, analysis
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in peracetic acid and hydrogen
 peroxide and acetic acid mixture by potentiometric
 titration)
 RN 79-21-0 HCPLUS
 CN Ethaneperoxoic acid (CA INDEX NAME)



RN 7722-84-1 HCPLUS
 CN Hydrogen peroxide (H₂O₂) (CA INDEX NAME)

HO-OH

L121 ANSWER 5 OF 13) HCPLUS COPYRIGHT 2007 ACS on STN
 AN 1989:624509 HCPLUS Full-text
 DN 111:224509
 TI Colorimetric method and reagent for determination of per acids
 IN Fischer, Wolfgang; Arlt, Edda; Brabaender, Barbara
 PA Merck Patent G.m.b.H., Fed. Rep. Ger.
 SO Ger. Offen., 3 pp.
 CODEN: GWXXBX

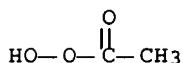
DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3743224	A1	19890629	DE 1987-3743224	19871219 <--
	EP 322631	A1	19890705	EP 1988-120784	19881213 <--
	EP 322631	B1	19910612		
	R: BE, CH, DE, FR, GB, IT, LI, NL				
	US 4900682	A	19900213	US 1988-285700	19881216 <--
	JP 01197653	A	19890809	JP 1988-318707	19881219 <--

JP 2640847 B2 19970813
 PRAI DE 1987-3743224 A 19871219 <--
 AB The sample solution is brought together with a chromogen, an iodide, and a buffer-containing reagent, and a color reaction is visually or spectrophotometrically evaluated. Peracetic acid in presence of H₂O₂ can be determined. Examples illustrate the use of tetramethylbenzidine and 4-chloro-1-naphthol.
 IC ICM G01N0031-22
 ICS G01N0033-52; G01N0021-25
 ICA A61L0002-18
 CC 79-3 (Inorganic Analytical Chemistry)
 ST peracetic acid detn colorimetry; peracid detn colorimetry; methylbenzidine reagent peracetic acid detn colorimetry; benzidine reagent peracetic acid detn colorimetry; chloronaphthol reagent peracetic acid detn colorimetry; naphthol reagent peracetic acid detn colorimetry
 IT 79-21-0, Peracetic acid
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, colorimetric method and reagent for)
 IT 604-44-4 20461-54-5, Iodide, uses and miscellaneous
 34314-06-2
 RL: ANST (Analytical study)
 (in determination of per acids by colorimetry, reagent containing)
 IT 79-21-0, Peracetic acid
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, colorimetric method and reagent for)
 RN 79-21-0 HCPLUS
 CN Ethaneperoxoic acid (CA INDEX NAME)

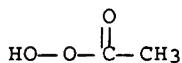


IT 20461-54-5, Iodide, uses and miscellaneous
 RL: ANST (Analytical study)
 (in determination of per acids by colorimetry, reagent containing)
 RN 20461-54-5 HCPLUS
 CN Iodide (CA INDEX NAME)

I-

L121 ANSWER 6 OF 13, HCPLUS COPYRIGHT 2007 ACS on STN
 AN 1988:582821 HCPLUS Full-text
 DN 109:182821
 TI Determination of peracids in the presence of a very large excess of hydrogen peroxide using a rapid and convenient spectrophotometric method
 AU Davies, D. Martin; Deary, Michael E;
 CS Dep. Chem. Life Sci., Newcastle upon Tyne Polytech., Newcastle upon Tyne,
 NE1 8ST, UK
 SO Analyst (Cambridge, United Kingdom) (1988), 113(9), 1477-9
 CODEN: ANALAO; ISSN: 0003-2654
 DT Journal

- LA English
- AB Peracids can be determined in the presence of up to a 1000-fold excess of hydrogen peroxide by taking advantage of the much greater rate of reaction of the peracid with iodide. A fast, convenient, and accurate spectrophotometric method is described that involves a simple linear extrapolation. The effects of a number of exptl. variables on the accuracy, precision, sensitivity, and selectivity of the method are described. The method has been applied to the determination of the peracetic acid formed during the perhydrolysis of p-nitrophenyl acetate.
- CC 80-6 (Organic Analytical Chemistry)
- ST peracid detn rapid spectrophotometry; hydrogen peroxide present peracid detn; iodide reagent peracid detn; nitrophenyl acetate perhydrolysis peracid detn; peracetic acid detn nitrophenyl acetate perhydrolysis
- IT Acids, analysis
- RL: ANT (Analyte); ANST (Analytical study)
(peroxy, determination of, in presence of large excess of hydrogen peroxide, spectrophotometric)
- IT Spectrochemical analysis
(spectrophotometric, for peracids, in presence of hydrogen peroxide, iodide in)
- IT 79-21-0, Peracetic acid
- RL: ANT (Analyte); ANST (Analytical study)
(determination of, in perhydrolysis of nitrophenyl acetate by spectrophotometry)
- IT 937-14-4, m-Chloroperbenzoic acid
- RL: ANT (Analyte); ANST (Analytical study)
(determination of, in presence of large excess of hydrogen peroxide, spectrophotometric)
- IT 7681-11-0, Potassium iodide (KI),
uses and miscellaneous
- RL: ANST (Analytical study); USES (Uses)
(in determination of peracids by spectrophotometry)
- IT 7722-84-1, Hydrogen peroxide, uses and
miscellaneous
- RL: ANST (Analytical study); USES (Uses)
(peracid determination in presence of, by spectrophotometry)
- IT 830-03-5, p-Nitrophenyl acetate
- RL: RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(perhydrolysis of, peracetic acid determination in, by spectrophotometry)
- IT 79-21-0, Peracetic acid
- RL: ANT (Analyte); ANST (Analytical study)
(determination of, in perhydrolysis of nitrophenyl acetate by spectrophotometry)
- RN 79-21-0 HCAPLUS
- CN Ethaneperoxoic acid (CA INDEX NAME)



- IT 7681-11-0, Potassium iodide (KI),
uses and miscellaneous
- RL: ANST (Analytical study); USES (Uses)
(in determination of peracids by spectrophotometry)
- RN 7681-11-0 HCAPLUS

CN Potassium iodide (KI) (CA INDEX NAME)

I-K

IT 7722-84-1, Hydrogen peroxide, uses and
miscellaneous
RL: ANST (Analytical study); USES (Uses)
(peracid determination in presence of, by spectrophotometry)

RN 7722-84-1 HCPLUS

CN Hydrogen peroxide (H₂O₂) (CA INDEX NAME)

HO-OH

L121 ANSWER 7 OF 13 HCPLUS COPYRIGHT 2007 ACS on STN

AN 1986:637583 HCPLUS Full-text

DN 105:237583

TI Kinetic behaviors of iodometry for determining a solution containing peroxides

AU Chou, Tse Chuan; Hwang, Bing Joe; Lu, Meng Kung

CS Dep. Chem. Eng., Natl. Cheng Kung Univ., Tainan, 700, Taiwan

SO Journal of the Chinese Institute of Chemical Engineers (1986), 17(4), 215-22

CODEN: JCICAP; ISSN: 0368-1653

DT Journal

LA English

AB The kinetic theory of iodometry for determining a solution containing ≥1 peroxides is proposed and confirmed by the anal. of a system containing 2 peroxides, e.g., H₂O₂-peracetic acid and peracetic acid-acetaldehyde monoperacetic acid. The results indicate that temperature, strength of catalyst, and titration time are the main factors which affect the determination of peroxides in solution. The relative rates of liberating I from iodide ion by each species of peroxides can be changed and controlled by changing the titration temperature or choosing a suitable amount of catalyst. The math. model describes the kinetic behaviors of each species of peroxide or the total peroxides in the solution are obtained. A good anal. can be obtained by applying the proposed kinetic theory of iodometry.

CC 79-6 (Inorganic Analytical Chemistry)
Section cross-reference(s): 80

ST peroxide detn iodometry kinetic theory; hydrogen peroxide detn iodometry; peracetic acid detn iodometry; acetaldehyde peracetic acid detn iodometry

IT Peroxides, analysis
RL: ANT (Analyte); ANST (Analytical study)
(determination of, kinetic theory of iodometric)

IT Iodometry
(in determination of peroxides, kinetic theory of)

IT 7416-48-0 7722-84-1, analysis
RL: ANT (Analyte); ANST (Analytical study)
(determination of, in binary mixture containing peracetic acid, kinetic theory of iodometric)

IT 79-21-0

RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in binary mixts. containing hydrogen peroxide
 or acetaldehyde monoperacetic acid, kinetic theory of
 iodometric)

IT 7722-84-1, analysis

RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in binary mixture containing peracetic acid,
 kinetic theory of iodometric)

RN 7722-84-1 HCPLUS

CN Hydrogen peroxide (H₂O₂) (CA INDEX NAME)

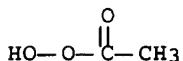


IT 79-21-0

RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in binary mixts. containing hydrogen peroxide
 or acetaldehyde monoperacetic acid, kinetic theory of
 iodometric)

RN 79-21-0 HCPLUS

CN Ethaneperoxoic acid (CA INDEX NAME)



L121 ANSWER 8 OF 13 HCPLUS COPYRIGHT 2007 ACS on STN

AN 1985:588847 HCPLUS Full-text

DN 103:188847

TI Continuous analysis of a sample containing a peroxy compound

IN Williams, John

PA Interox Chemicals Ltd., UK

SO Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DT Patent

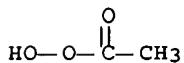
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 150123	A2	19850731	EP 1985-300380	19850121 <--
	EP 150123	A3	19880107		
	EP 150123	B1	19900307		
	R: AT, BE, DE, FR, GB, IT, NL				
	AU 8537914	A	19850725	AU 1985-37914	19850118 <--
	AU 567388	B2	19871119		
	AT 50866	T	19900315	AT 1985-300380	19850121 <--
	US 4680271	A	19870714	US 1985-693295	19850122 <--
PRAI	GB 1984-1630	A	19840121	<--	
	EP 1985-300380	A	19850121	<--	
AB	A continuous process and apparatus for the anal. of a sample containing a peroxy compound in the presence of H ₂ O ₂ , using known colorimetric techniques, is characterized in that a sample is taken continuously, is continuously mixed with a colorimetric reagent and is divided into 2 streams, and continuous differential colorimetric anal. of the 2 streams is effected to provide a differential signal. One of the streams is heated so that the peroxy compound				

reacts with the colorimetric reagent prior to effecting the anal., whereby the differential signal is a measure of the concentration of the peroxy compound. The process and apparatus may be modified in that a 3rd stream is taken not containing any colorimetric reagent, and the 2 differential colorimetric anal. are effected, whereby a further signal is obtained which is a measure of the concentration of the H₂O₂. A control process using a differential signal produced by the process of apparatus may be used to control the addition of peroxy compound to the body from which the sample is taken.

IC ICM G01N0021-78
 CC 80-2 (Organic Analytical Chemistry)
 Section cross-reference(s): 79
 ST peroxy compd detn differential colorimetry; hydrogen peroxide detn differential colorimetry; continuous analysis differential colorimetry app
 IT Hydroperoxides
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in presence of hydrogen peroxide, apparatus for continuous spectrophotometric)
 IT Peroxides, analysis
 RL: ANT (Analyte); ANST (Analytical study)
 (organic, determination of, in presence of hydrogen peroxide, apparatus for continuous spectrophotometric)
 IT Spectrochemical analysis
 (spectrophotometric, for peroxy compds. in presence of hydrogen peroxide, apparatus for continuous)
 IT 79-21-0
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in presence of hydrogen peroxide, apparatus for continuous spectrophotometric)
 IT 7722-84-1, analysis
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in presence of peroxy compds., apparatus for continuous spectrophotometric)
 IT 12680-49-8
 RL: ANST (Analytical study)
 (in determination of peracetic acid in presence of hydrogen peroxide, by spectrophotometry)
 IT 79-21-0
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in presence of hydrogen peroxide, apparatus for continuous spectrophotometric)
 RN 79-21-0 HCPLUS
 CN Ethaneperoxoic acid (CA INDEX NAME)

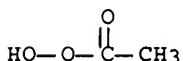


IT 7722-84-1, analysis
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in presence of peroxy compds., apparatus for continuous spectrophotometric)
 RN 7722-84-1 HCPLUS
 CN Hydrogen peroxide (H₂O₂) (CA INDEX NAME)

IT 12680-49-8
 RL: ANST (Analytical study)
 (in determination of peracetic acid in presence of
 hydrogen peroxide, by spectrophotometry)
 RN 12680-49-8 HCAPLUS.
 CN Molybdenum sodium oxide (CA INDEX NAME)

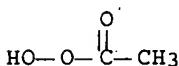
Component	Ratio	Component Registry Number
O	x	17778-80-2
Na	x	7440-23-5
Mo	x	7439-98-7

L121 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1984:443683 HCAPLUS Full-text
 DN 101:43683
 TI A modified method for titrimetric determination of peracetic acid
 AU Senf, H. J.
 CS Hohenmoelsen, DDR-4860, Ger. Dem. Rep.
 SO Zentralblatt für Pharmazie, Pharmakotherapie und Laboratoriumsdiagnostik (1984), 123(2), 77-9
 CODEN: ZPPLBF; ISSN: 0049-8696
 DT Journal
 LA German
 AB Peracetic acid [79-21-0] was determined in disinfectant containing H2O2 by mixing 20 mL disinfectant with 1 g NaF and titrating with 0.1N KMnO4 until the pink color remains. The solution is then mixed with KI, and the I formed is titrated with 0.1N Na2S2O3 with starch indicator. The NaF binds Mn2+ formed in the removal of H2O2 with KMnO4 and prevents interference in the subsequent titration of peracetic acid. Results agreed well with those of the reference method (Greenspan, F.R.; McKellar, D.G., 1948).
 CC 64-3 (Pharmaceutical Analysis)
 IT 79-21-0
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in disinfectants containing hydrogen peroxide by titration)
 IT 79-21-0
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in disinfectants containing hydrogen peroxide by titration)
 RN 79-21-0 HCAPLUS
 CN Ethaneperoxoic acid (CA INDEX NAME)



L121 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1974:581025 HCAPLUS Full-text
 DN 81:181025
 TI Kinetic analysis of mixtures of performic and peracetic acids in the presence of hydrogen peroxide

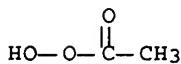
AU Shapilov, O. D.; Kostyukovskii, Ya. L.
 CS S. M. Kirov Mil. Med. Acad., Leningrad, USSR
 SO Zhurnal Analiticheskoi Khimii (1974), 29(8), 1643-5
 CODEN: ZAKHA8; ISSN: 0044-4502
 DT Journal
 LA Russian
 AB Optimum conditions for the determination of performic and peracetic acid in their mixts. in the presence of H₂O₂ are: 35°, pH 5.5 (buffer KH₂PO₄ + Na₂HPO₄), and Na or Ba diphenylaminesul-fonate (1% solution) as the reducing agent. The fixed-time method was used for the determination; the optimum time interval was 10 min. The sum of both acids is determined iodometrically or photometrically with benzidine. The rate of oxidation of diphenylaminesulfonate by performic acid is higher than that of oxidation by peracetic acid; the performic acid concentration can be determined from C₁ = (A₁ - k₂a) / (k₁ - k₂), where A₁ and A₂ are absorbances of solns., prepared by oxidation of the reducing agent with performic and peracetic acids, resp., k₁ and k₂ are slopes of the calibration curves, and a is C₁ + C₂. C₂ is the peracetic acid concentration and is found by difference. The sensitivity of the method is 1 + 10⁻³M with a 6% error.
 CC 80-6 (Organic Analytical Chemistry)
 ST performic peracetic acid detn kinetic
 IT 107-32-4
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in presence of hydrogen peroxide and peracetic acid, kinetic)
 IT 79-21-0
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in presence of hydrogen peroxide and performic acid, kinetic)
 IT 1300-92-1 30582-09-3
 RL: ANST (Analytical study)
 (in determination of performic and peracetic acids in presence of each other and hydrogen peroxide, kinetic)
 IT 7722-84-1, analysis
 RL: ANST (Analytical study)
 (peracetic acid and performic acid determination in presence of)
 IT 79-21-0
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in presence of hydrogen peroxide and performic acid, kinetic)
 RN 79-21-0 HCPLUS
 CN Ethaneperoxoic acid (CA INDEX NAME)



IT 7722-84-1, analysis
 RL: ANST (Analytical study)
 (peracetic acid and performic acid determination in presence of)
 RN 7722-84-1 HCPLUS
 CN Hydrogen peroxide (H₂O₂) (CA INDEX NAME)

HO—OH

L121 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1969:64160 HCAPLUS Full-text
 DN 70:64160
 TI Photometric determination of peroxy acids in the presence of hydrogen peroxide
 AU Shapilov, O. D.
 CS Military Med. Acad., Leningrad, USSR
 SO Zhurnal Analiticheskoi Khimii (1968), 23(12), 1857-8
 CODEN: ZAKHA8; ISSN: 0044-4502
 DT Journal
 LA Russian
 AB The determination of peroxy acids (AcOOH, EtCO₂OH, and HOOC(CH₂)₄CO₂OH) in the presence of <0.5% H₂O₂ is based on a selective oxidation of m-phenylenediamine (I) by the resp. peroxy acid in aqueous medium at pH 2-2.1 and 50-5° for 30-40 min. (or at room temperature for 4-4.5 hrs.); the solution is then red-brown colored. I is not affected by H₂O₂. The solution measured consists of 5 ml. buffer solution (KCl + HCl), 5 ml. 0.0005-0.004M peroxy acid solution containing H₂O₂, and 0.5 ml. 2% I solution in H₂O or EtOH; the reference solution consists of 5 ml. buffer, 5 ml. H₂O, 1 drop of 5-10% H₂O₂, and 0.5 ml. I. The absorbance (measured in a 0.5-cm. cell at 360 m μ) is proportional to concns. of 0.001-0.04% of peroxy acid. Peroxy acid can be determined in the concentration range 0.001-100%. The results of this method agree well with those of iodometric-permanganate method.
 CC 80 (Organic Analytical Chemistry)
 IT Peroxy acids
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in presence of hydrogen peroxide)
 IT 79-21-0 4212-43-5 5824-51-1
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in presence of hydrogen peroxide)
 IT 79-21-0
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in presence of hydrogen peroxide)
 RN 79-21-0 HCAPLUS
 CN Ethaneperoxoic acid (CA INDEX NAME)



L121 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1968:424266 HCAPLUS Full-text
 DN 69:24266
 TI Determination of hydrogen peroxide, peracetic acid, and acetyl peroxide present together
 AU Nichugovskii, G. F.; Vinogradova, E. V.; Dobychin, S. L.
 CS Gos. Inst. Prilk. Khim., Leningrad, USSR
 SO Zhurnal Analiticheskoi Khimii (1968), 23(4), 627-9
 CODEN: ZAKHA8; ISSN: 0044-4502
 DT Journal
 LA Russian



AB A method is suggested for the determination of H₂O₂ and peracetic acid in the presence of acetyl peroxide by potentiometric titration with sulfite. Determine H₂O₂ in an aliquot by titration with Ce(IV) in the presence of ferroin or without it. In the latter case the appearance of a yellow color indicates the equivalence point. In a 2nd aliquot, determine the sum of H₂O₂ and peracetic acid by potentiometric titration with sulfite in 20-40% HOAc. The total peroxides can be determined by titration of the I formed after addition of N KI in 20% HOAc to a 3rd aliquot with Na₂S₂O₃ after 2 hrs. standing. The error is <1%.

CC 79 (Inorganic Analytical Chemistry)

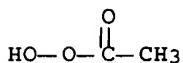
ST peroxides detn; hydrogen peroxide detn; acetyl peroxide detn; peracetic acid detn; sulfites titrn of peroxides

IT 79-21-0 7722-84-1, analysis
RL: ANT (Analyte); ANST (Analytical study)
(determination of, in presence of acetyl peroxide)

IT 79-21-0 7722-84-1, analysis
RL: ANT (Analyte); ANST (Analytical study)
(determination of, in presence of acetyl peroxide)

RN 79-21-0 HCPLUS

CN Ethaneperoxoic acid (CA INDEX NAME)



RN 7722-84-1 HCPLUS
CN Hydrogen peroxide (H₂O₂) (CA INDEX NAME)

HO-OH

L121 ANSWER 13 OF 13) HCPLUS COPYRIGHT 2007 ACS on STN

AN 1967:417592 HCPLUS Full-text

DN 67:17592

TI Microdetermination of peroxides by kinetic colorimetry

AU Purcell, Thomas C.; Cohen, Israel R.

CS Public Health Serv., Cincinnati, OH, USA

SO Environmental Science and Technology (1967), 1(5), 27-9
CODEN: ESTHAG; ISSN: 0013-936X

DT Journal

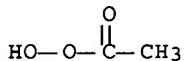
LA English

AB Fe(II) thiocyanate, neutral KI, and molybdate -catalyzed KI reagents were used for the analysis of γ quantities of a variety of peroxidic compds. by kinetic colorimetry. O₃ and peracetic acid gave an immediate maximum color development with all 3 reagents. H₂O₂ gave slow color development with neutral KI only. Acetyl peroxide, NO₂, alkyl hydroperoxides, and peroxyacyl nitrates gave slow color development with all 3 reagents. The half lives of these colorimetric reactions were used to identify specific oxidants.

CC 79 (Inorganic Analytical Chemistry)

ST OXIDANT IDENTIFICATION; PEROXIDE DETN; OZONE DETN; PERACETIC ACID DETN; NITROGEN DIOXIDE DETN; HYDROGEN PEROXIDE DETN; ACETYL PEROXIDE DETN; ALLYL HYDROPEROXIDE DETN; PEROXYACYL NITRATE DETN; COLORIMETRY KINETIC PEROXIDE; KINETIC COLORIMETRY

IT PEROXIDE
 IT 79-21-0 110-22-5 7722-84-1, analysis 10028-15-6,
 analysis 10102-44-0, analysis 14915-07-2, analysis
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, by kinetic colorimetry)
 IT 79-21-0 7722-84-1, analysis
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, by kinetic colorimetry)
 RN 79-21-0 HCAPLUS
 CN Ethaneperoxoic acid (CA INDEX NAME)



RN 7722-84-1 HCAPLUS
 CN Hydrogen peroxide (H2O2) (CA INDEX NAME)

HO—OH

=> d 1122 bib abs hitind hitstr retable tot

L122 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 2004:719675 HCAPLUS Full-text
 DN 142:344027
 TI Bioelectrochemistry of molecular oxygen and reactive oxygen species
 123.electroanalysis of PAA and H2O2: use of iodide/
 iodine couple as a probing potential buffer
 AU Awad, Mohamed Ismail; Ohsaka, Takeo
 CS Department of Electronic Chemistry, Interdisciplinary Graduate School of
 Science and Engineering, Tokyo Institute of Technology, Midori-ku,
 Yokohama, 226-8502, Japan
 SO Chemical Sensors (2004), 20(Suppl. A), 154-156
 CODEN: KAGSEU
 PB Denki Kagakkai Kagaku Sensa Kenkyukai
 DT Journal
 LA English
 AB A simple and rapid potentiometric method for the simultaneous anal. of
 peroxyacetic acid (PAA) and hydrogen peroxide (H2O2) has been proposed using
 glassy carbon (GC) as an indicator electrode and I2/I- as a probing potential
 buffer. On the basis of the large difference in the reaction rates of PAA and
 H2O2 with I-, a transient potential response corresponding to the reactions of
 the two species with I- was observed, typically a few seconds and several
 minutes for PAA and H2O2, resp. The effects of the concns. of molybdate,
 catalyst, H+, I2; and I- in the potential buffer on the selectivity as well as
 the sensitivity were examined. The potential response obtained using the GC
 indicator electrode was found to be Nernstian over a wide range of their
 concns. (typically from micromolar to millimolar) with slopes of 30.5 and 29.5
 mV for PAA and H2O2, resp. (in close agreement with the theor. value, i.e.,
 29.6 mV). O2 was found to have no substantial effect on the potential change
 at the GC electrode in the present potential buffer.
 CC 72-2 (Electrochemistry)
 Section cross-reference(s): 79

ST electroanalysis peroxyacetic acid hydrogen peroxide buffer iodide iodine couple

IT Biochemistry
Electrochemistry
(electrobiochem.; use of iodide/iodine couple as probing potential buffer in electroanal. of peroxyacetic acid and H₂O₂)

IT Reaction kinetics
(iodide/iodine couple as probing potential buffer in electroanal. of peroxyacetic acid and H₂O₂ on)

IT Buffers
Electrochemical analysis
Potentiometry
(use of iodide/iodine couple as probing potential buffer in electroanal. of peroxyacetic acid and H₂O₂)

IT 64-19-7, Acetic acid, uses 71-50-1, Acetate, uses
RL: NUU (Other use, unclassified); USES (Uses)
(electroanal. of peroxyacetic acid and H₂O₂ with iodide/iodine couple in acetate buffer solution containing)

IT 7440-44-0, Carbon, uses
RL: DEV (Device component use); USES (Uses)
(glassy; use of iodide/iodine couple as probing potential buffer in electroanal. of peroxyacetic acid and H₂O₂ on)

IT 14259-85-9
RL: CAT (Catalyst use); USES (Uses)
(iodide/iodine couple as probing potential buffer in electroanal. of peroxyacetic acid and H₂O₂ on glassy carbon electrode using)

IT 79-21-0, Peroxyacetic acid 7722-84-1
, Hydrogen peroxide, analysis
RL: ANT (Analyte); ANST (Analytical study)
(use of iodide/iodine couple as probing potential buffer in electroanal. of peroxyacetic acid and H₂O₂)

IT 7553-56-2, Iodine, reactions 20461-54-5,
Iodide, reactions
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(use of iodide/iodine couple as probing potential buffer in electroanal. of peroxyacetic acid and H₂O₂)

IT 7440-44-0, Carbon, uses
RL: DEV (Device component use); USES (Uses)
(glassy; use of iodide/iodine couple as probing potential buffer in electroanal. of peroxyacetic acid and H₂O₂ on)

RN 7440-44-0 HCPLUS

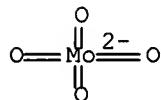
CN Carbon (CA INDEX NAME)

C

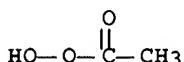
IT 14259-85-9

RL: CAT (Catalyst use); USES (Uses)
 (iodide/iodine couple as probing potential
 buffer in electroanal. of peroxyacetic acid
 and H₂O₂ on glassy carbon electrode
 using)

RN 14259-85-9 HCPLUS
 CN Molybdate (MoO₄2-), (T-4) - (9CI) (CA INDEX NAME)



IT 79-21-0, Peroxyacetic acid 7722-84-1
 , Hydrogen peroxide, analysis
 RL: ANT (Analyte); ANST (Analytical study)
 (use of iodide/iodine couple as probing potential
 buffer in electroanal. of peroxyacetic acid
 and H₂O₂)
 RN 79-21-0 HCPLUS
 CN Ethaneperoxoic acid (CA INDEX NAME)



RN 7722-84-1 HCPLUS
 CN Hydrogen peroxide (H₂O₂) (CA INDEX NAME)



IT 7553-56-2, Iodine, reactions 20461-54-5,
 Iodide, reactions
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical
 process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
 (use of iodide/iodine couple as probing potential
 buffer in electroanal. of peroxyacetic acid
 and H₂O₂)
 RN 7553-56-2 HCPLUS
 CN Iodine (CA INDEX NAME)

I-I

RN 20461-54-5 HCPLUS
 CN Iodide (CA INDEX NAME)

I-

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Awad, M	2001	73	1839	Anal Chem	HCAPLUS
Awad, M	2003	75	2688	Anal Chem	HCAPLUS
Awad, M	2001	34	1215	Anal Lett	HCAPLUS
Awad, M	2000	68	895	Electrochemistry	HCAPLUS
Awad, M	2003	544	35	J Electroanal Chem	HCAPLUS
Davies, D	1988	113	1477	Analyst	HCAPLUS
Frew, J	1983	155	139	Anal Chim Acta	HCAPLUS
Greenspan, F	1948	20	1061	Anal Chem	HCAPLUS
Lun, F	1983	145	151	Anal Chim Acta	
Sully, B	1962	87	653	Analyst	HCAPLUS
Swern, D	1970	1	362	Organic Peroxides	
Yuan, Z	1997	75	37	Can J Chem Eng	HCAPLUS

L122 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:326569 HCAPLUS Full-text

DN 138:330872

TI Simultaneous Potentiometric Determination of Peracetic Acid and Hydrogen Peroxide

AU Awad, Mohamed Ismail; Oritani, Tadato; Ohsaka, Takeo

CS Department of Electronic Chemistry, Interdisciplinary Graduate School of Science and Engineering, Tokyo Institute of Technology, Yokohama, 226-8502, Japan

SO Analytical Chemistry (2003), 75(11), 2688-2693

CODEN: ANCHAM; ISSN: 0003-2700

PB American Chemical Society

DT Journal

LA English

AB A rapid and highly selective potentiometric method for the simultaneous anal. of peracetic acid (PAA) and H₂O₂ is proposed, for the 1st time, using glassy C (GC) as an indicator electrode and I₂/I⁻ potential buffer. From the large difference in the reaction rates of PAA and H₂O₂ with I⁻, which was confirmed using stopped-flow spectrophotometry, a transient potential response corresponding to the reactions of the two species with I⁻ was observed. The response times were typically a few seconds and several minutes for PAA and H₂O₂, resp. The effects of the concns. of molybdate catalyst, H⁺, I₂, and I⁻ in the potential buffer on the selectivity as well as the sensitivity were examined. The potential response obtained using the GC indicator electrode is Nernstian over a wide range of their concns. (typically from micromolar to millimolar) with slopes of 30.5 and 29.5 mV for PAA and H₂O₂, resp. (in close agreement with the theor. value, i.e., 29.6 mV). O₂ has no substantial effect on the potential change at the GC electrode in the present potential buffer.

CC 79-6 (Inorganic Analytical Chemistry)

Section cross-reference(s): 80

ST potentiometric detn peracetic acid
hydrogen peroxideIT Potentiometry
(simultaneous potentiometric determination of peracetic acid and hydrogen peroxide)

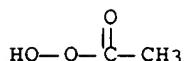
IT 79-21-0, Peracetic acid 7722-84-1,

Hydrogen peroxide, analysis

RL: ANT (Analyte); ANST (Analytical study)

(simultaneous potentiometric determination of peracetic

acid and hydrogen peroxide)
IT 20461-54-5, Iodide, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(simultaneous potentiometric determination of peracetic acid and hydrogen peroxide)
IT 79-21-0, Peracetic acid 7722-84-1,
Hydrogen peroxide, analysis
RL: ANT (Analyte); ANST (Analytical study)
(simultaneous potentiometric determination of peracetic acid and hydrogen peroxide)
RN 79-21-0 HCAPLUS
CN Ethaneperoxoic acid (CA INDEX NAME)



RN 7722-84-1 HCAPLUS
CN Hydrogen peroxide (H₂O₂) (CA INDEX NAME)



IT 20461-54-5, Iodide, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(simultaneous potentiometric determination of peracetic acid and hydrogen peroxide)
RN 20461-54-5 HCAPLUS
CN Iodide (CA INDEX NAME)

I-

RETABLE

Referenced Author (RAU)	Year (R PY)	VOL (R VL)	PG (R PG)	Referenced Work (RWK)	Referenced File
Awad, M	2001	73	1839	Anal Chem	HCAPLUS
Awad, M	2001	34	1215	Anal Lett	HCAPLUS
Awad, M	2000	68	895	Electrochemistry	HCAPLUS
Awad, M	2003	344	253	Inorg Chim Acta	HCAPLUS
Ball, D	1994	78	133	J Am Chem Soc	
Cheremisinoff, N	2000			Handbook of Hazardous	
Copper, C	1999	288	229	Inorg Chim Acta	HCAPLUS
Davies, D	1988	113	1477	Analyst	HCAPLUS
Di Furia, F	1984	109	985	Analyst	HCAPLUS
Di Furia, F	1988	113	793	Analyst	HCAPLUS
Douglas, A	1982		375	Fundamentals of Anal	
Effkemann, S	1998	70	3857	Anal Chem	HCAPLUS
Effkemann, S	1999	855	551	J Chromatogr, A	HCAPLUS
Frew, J	1983	155	139	Anal Chim Acta	HCAPLUS

Garcia, F	1969	13	222A	Rev Soc Quim Mex	
Greenspan, F	1948	20	1061	Anal Chem	HCAPLUS
Hadjioanou, T	1975	36	17	Anal Chim Acta	
Karunakaran, C	1995	20	463	Transition Met Chem	
Koubek, E	1963	85	2262	J Am Chem Soc	
Krussmann, H	1994	31	229	Tenside Surf Deterg	HCAPLUS
Ohura, H	1999	49	1003	Talanta	HCAPLUS
Pinkernell, U	1994	66	2599	Anal Chem	HCAPLUS
Pinkernell, U	1997	69	3623	Anal Chem	HCAPLUS
Pinkernell, U	1997	122	567	Analyst	HCAPLUS
Saltzman, E	1959	31	1914	Anal Chem	
Sully, B	1962	87	653	Analyst	HCAPLUS
Swern, D	1970	1	362	Organic Peroxides	
Vogel, A	1978			Vogel's Textbook of	
Yuan, Z	1997	75	37	Can J Chem Eng	HCAPLUS
Yuan, Z	1997	75	42	Can J Chem Eng	HCAPLUS
Z-Lun, F	1983	145	151	Anal Chim Acta	

L122 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:176111 HCAPLUS Full-text

DN 138:395056

TI Potentiometric analysis of peroxyacetic acid
in the presence of a large excess of hydrogen peroxide

AU Awad, Mohamed Ismail; Ohsaka, Takeo

CS Interdisciplinary Graduate School of Science and Engineering, Department
of Electronic Chemistry, Tokyo Institute of Technology, Midori-ku,
Yokohama, 226-8502, JapanSO ~~Journal of Electroanalytical Chemistry (2003) 544:35-40~~

CODEN: JECHE5

PB Elsevier Science B.V.

DT Journal

LA English

AB The potentiometric anal. of peroxyacetic acid (PAA) in the presence of a large excess of H₂O₂, ≤ 500 times the concns. of PAA, is presented. This method is based on the detection of the potential change of the glassy carbon indicator electrode in the I-/I₂ potential buffer which is caused by the change in the concns. of I- and I₂ as a result of the redox reaction of the PAA and/or H₂O₂ with I-. Based on the fact that the reaction rate of PAA and I- is much faster than that of H₂O₂ and I-, a high selective response for PAA was obtained. The different factors, such as the concns. of I- and I₂ in the potential buffer, affecting the selectivity and sensitivity were studied. A good calibration curve for PAA, the slope of which is in close agreement with that expected from the Nernst equation, i.e., 29.6 mV per decade, was obtained with a correlation coefficient higher than 0.993. The detection limit for PAA was found to be in the micromolar range depending on the concentration of the coexistent H₂O₂.

CC 80-6 (Organic Analytical Chemistry)

ST peroxyacetic acid detn hydrogen

peroxide soln potentiometry

IT Potentiometry

(potentiometric determination of peroxyacetic acid
in presence of large excess of hydrogen peroxide)

IT 7553-56-2, Iodine, uses 20461-54-5,

Iodide, uses

RL: ARG (Analytical reagent use); ANST (Analytical

study); USES (Uses)

(potential buffer; potentiometric determination of
peroxyacetic acid in presence of large excess of
hydrogen peroxide)

IT 7722-84-1, Hydrogen peroxide, analysis

RL: AMX (Analytical matrix); ANST (Analytical study)
 (potentiometric determination of peroxyacetic acid
 in presence of large excess of hydrogen peroxide)

IT 79-21-0, Peroxyacetic acid
 RL: ANT (Analyte); ANST (Analytical study)
 (potentiometric determination of peroxyacetic acid
 in presence of large excess of hydrogen peroxide)

IT 7553-56-2, Iodine, uses 20461-54-5,
 Iodide, uses
 RL: ARG (Analytical reagent use); ANST (Analytical
 study); USES (Uses)
 (potential buffer; potentiometric determination of
 peroxyacetic acid in presence of large excess of
 hydrogen peroxide)

RN 7553-56-2 HCPLUS

CN Iodine (CA INDEX NAME)

I-I

RN 20461-54-5 HCPLUS
 CN Iodide (CA INDEX NAME)

I-

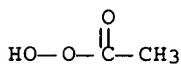
IT 7722-84-1, Hydrogen peroxide, analysis
 RL: AMX (Analytical matrix); ANST (Analytical study)
 (potentiometric determination of peroxyacetic acid
 in presence of large excess of hydrogen peroxide)

RN 7722-84-1 HCPLUS
 CN Hydrogen peroxide (H2O2) (CA INDEX NAME)

HO-OH

IT 79-21-0, Peroxyacetic acid
 RL: ANT (Analyte); ANST (Analytical study)
 (potentiometric determination of peroxyacetic acid
 in presence of large excess of hydrogen peroxide)

RN 79-21-0 HCPLUS
 CN Ethaneperoxyic acid (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (R PY)	VOL (R VL)	PG (R PG)	Referenced Work (RWK)	Referenced File
=====	=====	=====	=====	=====	=====

Awad, M	2001	73	1839	Anal Chem	HCAPLUS
Awad, M				Anal Chem, submitted	
Awad, M	2001	34	1215	Anal Lett	HCAPLUS
Awad, M	2000	68	895	Electrochemistry	HCAPLUS
Awad, M	2003	344	253	Inorg Chim Acta	HCAPLUS
Baj, S	1994	350	159	Fresenius' J Anal Ch	HCAPLUS
Ball, D	1994	78	133	J Am Chem Soc	
Boullion, G	1983			The Chemistry of Fun	
Copper, C	1998	75	87	J Chem Educ	HCAPLUS
Davies, D	1988	113	1477	Analyst	HCAPLUS
Di Furia, F	1984	109	985	Analyst	HCAPLUS
Di Furia, F	1988	113	793	Analyst	HCAPLUS
D'Ans, J	1912	45	1845	Chem Ber	HCAPLUS
Effkemann, S	1998	70	3857	Anal Chem	HCAPLUS
Effkemann, S	1999	855	551	J Chromatogr A	HCAPLUS
Greenspan, F	1948	20	1061	Anal Chem	HCAPLUS
Jones, J	1983	155	139	Anal Chim Acta	
Koubek, E	1963	85	2262	J Am Chem Soc	
Krussmann, H	1994	31	229	Tenside Surf Deterg	HCAPLUS
Parcell, T	1967	1	431	Environ Sci Technol	
Pinkernell, U	1994	66	2599	Anal Chem	HCAPLUS
Pinkernell, U	1997	69	3623	Anal Chem	HCAPLUS
Pinkernell, U	1997	122	567	Analyst	HCAPLUS
Saltzman, E	1959	31	1914	Anal Chem	
Sully, B	1962	87	653	Analyst	HCAPLUS
Swern, D	1970	I		Organic Peroxides	
Vetter, K	1967			Electrochemical Kine	
Williams, J	1985			EP 0-150-123	HCAPLUS
Wylie, C	1953			Calculus	
Yuan, Z	1997	75	37	Can J Chem Eng	HCAPLUS
Yuan, Z	1997	75	42	Can J Chem Eng	HCAPLUS

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FILE 'WPIX' ENTERED AT 15:03:49 ON 01 AUG 2007

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FILE LAST UPDATED: 27 JUL 2007 <20070727/UP>

MOST RECENT THOMSON SCIENTIFIC UPDATE: 200748 <200748/DW>

DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> IPC Reform backfile reclassification has been loaded to 31 May 2007. No update date (UP) has been created for the reclassified documents, but they can be identified by 20060101/UPIC and 20061231/UPIC and 20060601/UPIC. <<<

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FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
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=> d bib abs tech abex tot

L145 ANSWER 1 OF 6 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 AN 2003-774712 [73] WPIX Full-text
 DNN N2003-621184 [73]
 TI Concentration determination method for peracetic acid used in e.g. medical treatment, involves measuring variation in oxidation-reduction potential of platinum wire, due to reaction of peracetic acid and iodide ions
 DC S03
 IN ASA K; AWAD M I; HARNOOD T; KARNOOD T; MOHAMED I A; OHSAKA T; OSAKA T
 PA (AWAD-I) AWAD M I; (CIRC-N) CIRCLE PROMOTION SCI & ENG; (HARN-I) HARNOOD T; (OHS-A-I) OHSAKA T; (RICO-N) RICOH KYOSAN INC; (RIKO-N) RIKO KOSAN KK; (RIKO-N) ZH RIKOGAKU SHINKOKAI.
 CYC 32
 PIA JP 2003294694 A 20031015 (200373)* JA 7[3]
 WO 2003085393 A1 20031016 (200378) JA
 JP 3504939 B2 20040308 (200418) JA 7
 EP 1491885 A1 20041229 (200502) EN
 US 20050084978 A1 20050421 (200531) EN
 ADT JP 2003294694 A JP 2002-102110 20020404; JP 3504939 B2 JP 2002-102110 20020404; EP 1491885 A1 EP 2003-745897 20030403; WO 2003085393 A1 WO 2003-JP4273 20030403; EP 1491885 A1 WO 2003-JP4273 20030403; US 20050084978 A1 WO 2003-JP4273 20030403; US 20050084978 A1 US 2004-509179 20040927
 FDT JP 3504939 B2 Previous Publ JP 2003294694 A; EP 1491885 A1 Based on WO 2003085393 A
 PRAI JP 2002-102110 20020404
 AN 2003-774712 [73] WPIX Full-text
 AB JP 2003294694 A UPAB: 20060120
 NOVELTY - The method involves adding solution comprising peracetic acid and hydrogen peroxide to a pH buffer solution comprising molybdate and iodide ions. The variation in oxidation-reduction potential of a platinum wire, due to reaction of peracetic acid, hydrogen peroxide and iodide ions, is measured.
 USE - For determining concentration of hydrogen peroxide and peracetic acid used as disinfectant for medical treatment and foodstuff industry, in solution comprising peracetic acid and hydrogen peroxide, simultaneously.
 ADVANTAGE - The concentration of peracetic acid and hydrogen peroxide are determined easily. DESCRIPTION OF DRAWINGS - The figure shows the graph of time change of electrode potential of platinum wire. (Drawing includes non-English language text).

L145 ANSWER 2 OF 6 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 AN 2000-117768 [11] WPIX Full-text
 DNC C2000-036272 [11]
 DNN N2000-089201 [11]
 TI Electrochemical measuring cell with silicone membrane
 DC E17; E36; J04; S03
 IN REISS G
 PA (REIS-I) REISS G
 CYC 1
 PIA DE 19830205 A1 20000113 (200011)* DE 6[3]
 ADT DE 19830205 A1 DE 1998-19830205 19980707
 PRAI DE 1998-19830205 19980707
 AN 2000-117768 [11] WPIX Full-text
 AB DE 19830205 A1 UPAB: 20050705
 NOVELTY - The electrochemical measuring cell comprises inner electrodes (11) and an electrolyte chamber (12), divided by a membrane, (1) containing measuring liquid. The membrane is made of silicone.
 USE - For measuring chlorine, chlorine dioxide, ozone, hydrogen peroxide and peracetic acid.

ADVANTAGE - Dislocation of the membrane is avoided. DESCRIPTION OF DRAWINGS -
 The drawing shows a cross-section of the cell.
 Silicone membrane (1)
 Carrier ring (2)
 Electrode (11)
 Electrolyte chamber (12)

TECH

INORGANIC CHEMISTRY - Preferred Cell: The membrane contains no pores or contains micropores, and is formed as a foam with a thickness of 0.05-1.0, preferably 0.125-0.25 mm. The membrane is tensioned in a carrier ring (2) or arranged in layers with a carrier material preferably made of a gauze or web. The ring (2) is made of special steel. The cell is especially a hydrogen peroxide measuring cell containing an electrolyte comprising buffer solution (pH 4), potassium iodide and ammonium molybdate tetrahydrate.

L145 ANSWER 3 OF 6 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 AN 1998-310006 [27] WPIX Full-text
 DNC C1998-095403 [27]
 DNN N1998-242997 [27]
 TI Method for the determination of peracetic acid in the presence of hydrogen peroxide - gives improved detection levels for iodine
 DC E17; J04; S03
 PA (ANON-C) ANONYMOUS
 CYC 1
 PIA RD 407005 A 19980310 (199827)* EN 1[0]
 ADT RD 407005 A RD 1998-407005 19980220
 PRAI RD 1998-407005 19980220
 AN 1998-310006 [27] WPIX Full-text
 AB RD 407005 A UPAB: 20050521
 The process and device for the determination of peracetic acid in the presence of hydrogen peroxide, may be improved by incorporating the method claimed in US 4900682. The detection of iodine which results from the following chemical reaction:

$$2\text{H}^+ + \text{CH}_3\text{CO}_3\text{H} + 2\text{I} \rightarrow \text{CH}_3\text{CO}_2\text{H} + \text{I}_2 + \text{H}_2\text{O}$$
 is difficult to achieve at 520-570 nm, when the peracetic acid concentration is inferior to 10 ppm. Such a detection is improved with the transformation of iodine with a chromogen compound such as N,N-diethyl p-phenylenediamine (Pdp).
 ADVANTAGE - Detection levels are improved.

L145 ANSWER 4 OF 6 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
 AN 1994-194197 [24] WPIX Full-text
 DNC C1994-088431 [24]
 DNN N1994-152903 [24]
 TI Fractional determination of peracetic acid and hydrogen peroxide - by adding excess potassium iodide and titrating
 DC E17; E36; J04; S03
 IN HASHIMOTO A; HIRAKURI K; MACHIDA Y
 PA (NIPX-C) NIPPON PEROXIDE CO LTD
 CYC 1
 PIA JP 06130051 A 19940513 (199424)* JA 5[0]
 JP 3170526 B2 20010528 (200132) JA 5
 ADT JP 06130051 A JP 1992-303215 19921016; JP 3170526 B2 JP 1992-303215 19921016
 FDT JP 3170526 B2 Previous Publ JP 06130051 A
 PRAI JP 1992-303215 19921016
 AN 1994-194197 [24] WPIX Full-text

AB JP 06130051-A UPAB: 20050508

Fractional determination of peracetic acid and hydrogen peroxide in an aq soln contg peracetic acid, hydrogen peroxide and acetic acid is carried out by adding a little excess amt of potassium iodide with respect to peracetic acid. The liberated iodine is titrated with sodium thiosulphate standard liq to determine the peracetic acid concentration and potassium iodide aqueous solution (in excess amount of the equivalent with respect to the hydrogen peroxide), dil sulphuric acid and ammonium molybdate aq soln are added to the mixed soln to titrate the liberated iodine with sodium thiosulphate standard soln to determine the hydrogen peroxide concentration.

USE/ADVANTAGE - Peracetic acid concentration and hydrogen peroxide concentration can be determined correctly by one sampling.

Member(0002)

ABEQ JP 3170526 B2 UPAB 20050508

Fractional determination of peracetic acid and hydrogen peroxide in an aq soln contg peracetic acid, hydrogen peroxide and acetic acid is carried out by adding a little excess amt of potassium iodide with respect to peracetic acid. The liberated iodine is titrated with sodium thiosulphate standard liq to determine the peracetic acid concn. and potassium iodide aq. soln. (in excess amount of the equivalent with respect to the hydrogen peroxide), dil sulphuric acid and ammonium molybdate aq soln are added to the mixed soln to titrate the liberated iodine with sodium thiosulphate standard soln to determine the hydrogen peroxide concn..

USE/ADVANTAGE - Peracetic acid concn. and hydrogen peroxide concn. can be determined correctly by one sampling.

L145 ANSWER 5 OF 6 WPIX COPYRIGHT 2007

THE THOMSON CORP on STN

AN 1991-295773 [40] WPIX Full-text

DNC C1991-127903 [21]

DNN N1991-226529 [21]

TI Colorimetric determn. of solution concentration - uses pump activated in response

to photometer cell measurement in order to add diluting or acidity adjusting solution

DC D13; D22; E36; J04; S03; X25

IN CRISINEL P; DE LA VARENDE J M; MALLARD DE LA VARENDE J; MALLARDDEV J

PA (AIRL-C) AIR LIQUIDE; (CAAL-C) AIR LIQUIDE CANADA LTEE; (AIRL-C) AIR LIQUIDE SA

CYC 15

PIA	WO 9114172	A	19910919 (199140)*	EN
	FR 2659738	A	19910920 (199148)	FR
	EP 472713	A	19920304 (199210)	EN
	PT 97060	A	19930531 (199325)	PT
	US 5438002	A	19950801 (199536)	EN 7[1]
	EP 472713	B1	19970820 (199738)	FR 11[1]
	DE 69127327	E	19970925 (199744)	DE
	ES 2106777	T3	19971116 (199801)	ES
	US 5756358	A	19980526 (199828)	EN
	EP 472713	B2	20030502 (200330)	FR

ADT FR 2659738 A FR 1990-3374 19900316; DE 69127327 E DE 1991-69127327
 19910313; EP 472713 A EP 1991-906634 19910313; EP 472713 B1 EP 1991-906634
 19910313; DE 69127327 E EP 1991-906634 19910313; ES 2106777 T3 EP
 1991-906634 19910313; EP 472713 B2 EP 1991-906634 19910313; US 5438002 A

WO 1991-FR203 19910313; EP 472713 B1 WO 1991-FR203 19910313; DE 69127327 E
 WO 1991-FR203 19910313; US 5756358 A Div Ex WO 1991-FR203 19910313; EP
 472713 B2 WO 1991-FR203 19910313; PT 97060 A PT 1991-97060 19910315; US
 5438002 A US 1991-768279 19911001; US 5756358 A Div Ex US 1991-768279
 19911001; US 5756358 A US 1995-438038 19950508

FDT DE 69127327 E Based on EP 472713 A; ES 2106777 T3 Based on EP 472713 A; US
 5756358 A Div ex US 5438002 A; US 5438002 A Based on WO 9114172 A; EP
 472713 B1 Based on WO 9114172 A; DE 69127327 E Based on WO 9114172 A; EP
 472713 B2 Based on WO 9114172 A

PRAI FR 1990-3374 19900316

AN 1991-295773 [40] WPIX Full-text

AB WO 1991014172 A UPAB: 20060107

Colourimetric determin. by forming iodine or excess iodide, has the peracid content adjusted in the presence of hydrogen peroxide in a solution (2) with a molar concentration ratio of hydrogen peroxide/peracid no greater than 100. A pump (3) is used to draw a diluting and/or pH adjusting liquid (9) simultaneously into the intake circuits of two pumps (5,6) operating at the same flow rate. A photometer is used to measure the intensity of iodine colouration formed in a measuring tank, in order to control a regulator, determining the adjustment which it is required to make.

USE - Controlling peracid content in industrial disinfectant solutions. @ (15pp Dwg.No.1/1)@

Member (0005)

ABEQ US 5438002 A UPAB 20060107

A colorimetric process for adjustment of per acid content in the presence of H₂O₂ in a (partially) aq. soln. (in which a molar ratio of (H₂O₂):(per acid) does not exceed 100, comprises: (1) drawing the soln. using three suction means operating at equivalent flow rates, which simultaneously draw at least one of a dilution and pH control liq.; (2) feeding soln. to a reference vat of a two beam photometer using second suction means; (3) feeding soln. to a measuring vat using third suction means; (4) adjusting flow rate of suction means so that flow draw by second and third means is less than 100 ppm by wt.; (5) adding excess iodide to measuring flow using a fourth suction means; (6) comparing intensity of iodine colour formed in measuring vat to a connected reference vat; and (7) transferring the difference in intensity to a regulator operating a pump for injection of a soln. of peracid into the soln. to be adjusted.

USE/ADVANTAGE - Used esp. for treating peracetic acid in disinfection processes. Can be used on an industrial scale. Device is automated, simple and inexpensive.

Member (0009)

ABEQ US 5756358 A UPAB 20060107

Colourimetric determin. by forming iodine or excess iodide, has the peracid content adjusted in the presence of hydrogen peroxide in a solution (2) with a molar concentration ratio of hydrogen peroxide/peracid no greater than 100. A pump (3) is used to draw a diluting and/or pH adjusting liquid (9) simultaneously into the intake circuits of two pumps (5,6) operating at the same flow rate.

A photometer is used to measure the intensity of iodine colouration formed in a measuring tank, in order to control a regulator, determining the adjustment which it is required to make.

USE - Controlling peracid content in industrial disinfectant solutions.

L145 ANSWER 6 OF 6 WPIX COPYRIGHT 2007
 AN 1989-193513 [27] WPIX Full-text
 DNC C1989-085583 [21]
 DNN N1989-147979 [21]
 TI Colorimetric determination of peracid in presence of hydrogen peroxide - using chromogen, iodide and opt. buffer, pref. impregnated into carrier
 DC E17; J04; S03
 IN ARLT E; BRABANDER B; FISCHER W
 PA (MERE-C) MERCK PATENT GMBH
 CYC 9
 PIA DE 3743224 A 19890629 (198927)* DE 4 [0]
 EP 322631 A 19890705 (198927) DE
 JP 01197653 A 19890809 (198938) JA
 US 4900682 A 19900213 (199013) EN 4
 EP 322631 B 19910612 (199124) EN
 DE 3863285 G 19910718 (199130) DE
 JP 2640847 B2 19970813 (199737) JA 3 [0]
 ADT DE 3743224 A DE 1987-3743224 19871219; DE 3863285 G DE 1987-3743224 19871219; EP 322631 A EP 1988-120784 19881213; US 4900682 A US 1988-285700 19881216; JP 01197653 A JP 1988-318707 19881219; JP 2640847 B2 JP 1988-318707 19881219
 FDT JP 2640847 B2 Previous Publ JP 01197653 A
 PRAI DE 1987-3743224 19871219
 AN 1989-193513 [27] WPIX Full-text
 AB DE 3743224 A UPAB: 20060105
 Determination of peracids (I) comprises incubating a test solution with a reagent containing a chromogen, an iodide and opt. a buffer then spectrophotometric or visual evaluation of the resulting colour-forming reaction. The reagent itself is also new. The reagent, opt. impregnated into a matrix, contains tetramethylbenzidine (TMB), KI and phosphate buffer.
 USE/ADVANTAGE - The method is used to determine peracetic acid (I) (widely used as a disinfectant) in presence of H₂O₂. The presence of an iodide, rather than an O₂-transfer catalyst as in conventional reagents, means that (I) react quickly but H₂O₂ hardly at all.

Member(0004)

ABEQ US 4900682 A UPAB 20060105

The concn of a peracid in a sample soln is determined by (a) mixing the sample soln with reagent contg a chromogen and an iodide and comparing the resultant colour of the mixt with a standard to determine the amt of peracid in the sample soln. Pref reagent further contains a buffer to effect a pH of 3-6. The colour of the resultant mixt is measured by spectrophotometry. The sample soln contains H₂O₂.

ADVANTAGE - It is possible to determine peracids even in the presence of other peroxides. (4pp)s

Member(0007)

ABEQ JP 2640847 B2 UPAB 20060105

Determination of peracids (I) comprises incubating a test soln. with a reagent contg. a chromogen, an iodide and opt. a buffer then spectrophotometric or visual evaluation of the resulting colour-forming reaction. The reagent itself is also new. The reagent, opt. impregnated into a matrix, contains tetramethylbenzidine (TMB), KI and phosphate buffer.

USE/ADVANTAGE - The method is used to determine peracetic acid (I) (widely used as a disinfectant) in presence of H₂O₂. The presence of an iodide, rather than an O₂-transfer catalyst as in conventional reagents, means that (I) react

THE THOMSON CORP on STN

quickly but H2O2 hardly at all.

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(FILE 'HOME' ENTERED AT 14:05:37 ON 01 AUG 2007)
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 14:06:22 ON 01 AUG 2007

L1 1 S US20050084978/PN OR (US2004-509179# OR WO2003-JP4273 OR JP200
E HARNOOD/AU
E TSOGT/AU
E OSAKA/AU

L2 348 S E50,E54
E TAKEO/AU

L3 1 S E3
E TAKEO O/AU

L4 1 S E6
E BACK E1

L5 5 S E8
E AWAD/AU
E AWAD M/AU

L6 30 S E3,E8
E AWAD MO/AU

L7 12 S E4,E7,E8,E9,E12

L8 17 S E13,E14
E ISMAIL/AU

L9 22 S E3
L10 123 S E4
L11 34 S E27
E ISMAIL AWAD/AU
E MOHAMED/AU

L12 110 S E3,E4
L13 19 S E30,E31
E MOHAMED AWAD/AU
E MOHAMED I/AU

L14 8 S E3,E4
L15 4 S E23,E24
E KARNOOD/AU
E RICOH/PA,CS
E RICOH KYOSAN/PA,CS

L16 8 S E5-E13
E RICOH KYOSAN/CO

L17 8 S E4,E5
E E4+ALL
E E1+ALL

L18 32432 S E2+RT
E RICOH/PA,CS

L19 32308 S E3,E4
L20 32308 S RICOH?/PA,CS,CO

L21 0 S L1 AND L2-L20
E RIKO/PA,CS

L22 8 S E31-E34
E RIKO/CO

L23 8 S E13
E E7+ALL

L24 12 S E2
E E2+ALL

L25 1 S L1 AND L22-L24
E OSAKA/AU

E OSAKA T/AU
 L26 207 S E3
 L27 37 S E13
 E OSAKA NAME/AU
 E TAKEO O/AU
 L28 1 S E6
 L29 1 S L1 AND L2-L28

FILE 'REGISTRY' ENTERED AT 14:19:01 ON 01 AUG 2007
 E PERACETIC ACID/CN

L30 1 S E3
 L31 1 S E4
 E HYDROGEN PEROXIDE/CN
 L32 1 S E3
 E MOLYBDATE/CN
 L33 1 S E3
 E MOLYBDATE
 L34 11119 S E3 AND 1/NC
 L35 10754 S L34 NOT SQL/FA
 L36 1 S IODINE/CN
 E I/MF
 L37 167 S E3
 L38 68 S L37 NOT MASS
 L39 99 S L37 NOT L38
 E POTASSIUM IODIDE/CN
 L40 1 S E3
 L41 309633 S MO/ELS OR 7439-98-7/CRN OR 7439-98-7 OR ?MOLYBD?/CNS
 L42 298879 S L41 NOT L35
 L43 5 S (PLATINUM OR GOLD OR CARBON)/CN OR 7782-42-5 OR 7782-40-3

FILE 'HCAPLUS' ENTERED AT 14:24:03 ON 01 AUG 2007

L44 4539 S L30
 L45 5095 S (PERACETIC OR PER ACETIC) ()ACID
 L46 1836 S (PEROXYSACETIC OR PEROXY ACETIC OR PER OXYACETIC OR PER OXY AC
 L47 40 S (PEROXOACETIC OR PEROXO ACETIC OR PER OXOACETIC OR PER OXO AC
 L48 115 S (ETHANEPEROXOIC OR ETHANE PEROXOIC) ()ACID
 L49 24 S ACETIC PEROXIDE
 L50 2 S PERACETICACID
 L51 6841 S L44-L50
 L52 103562 S L32
 L53 204816 S HYDROGEN PEROXIDE OR HYDROGENPEROXIDE OR H2O2
 L54 2404 S L51 AND L52,L53
 L55 64 S L54 AND (L36 OR L38 OR L39 OR L40)
 L56 21 S L54 AND (K OR POTASSIUM) () IODIDE
 L57 32 S L54 AND KI
 L58 147 S L54 AND (?IODIN? OR ?IODO?)
 L59 181 S L55-L58

FILE 'REGISTRY' ENTERED AT 14:29:40 ON 01 AUG 2007

FILE 'HCAPLUS' ENTERED AT 14:29:40 ON 01 AUG 2007
 L60 TRA L59 1- RN : 6076 TERMS

FILE 'REGISTRY' ENTERED AT 14:29:48 ON 01 AUG 2007
 L61 6073 SEA L60
 L62 7 S L61 AND L33,L35,L42
 L63 2 S L61 AND L34
 L64 7 S L62,L63

FILE 'HCAPLUS' ENTERED AT 14:31:00 ON 01 AUG 2007

L65 9 S L64 AND L59
 L66 12 S L59 AND ?MOLYBD?
 L67 1 S L59 AND MO
 L68 14 S L65,L66,L67
 E POTENTIOMETRY/CT
 L69 3941 S E3-E5
 E E3+ALL
 L70 5821 S E4+NT
 E E8+ALL
 L71 722 S E9+OLD,NT
 E E9+ALL
 L72 722 S E3+NT
 E POTENIOM/CT
 E POTENIOM/CT
 L73 6 S E4
 L74 4972 S E5-E24
 E E24+ALL
 L75 368 S E2
 L76 3 S L68 AND L69-L75
 L77 4 S L68 AND ?POTENIOM?
 L78 4 S L76,L77
 L79 76 S L54 AND ?IODID?
 L80 206 S L59,L79
 L81 25 S L80 NOT L59

FILE 'REGISTRY' ENTERED AT 14:35:23 ON 01 AUG 2007

FILE 'HCAPLUS' ENTERED AT 14:35:23 ON 01 AUG 2007

L82 TRA L81 1- RN : 483 TERMS

FILE 'REGISTRY' ENTERED AT 14:35:24 ON 01 AUG 2007

L83 483 SEA L82
 L84 0 S L83 AND L33,L34,L35,L42

FILE 'HCAPLUS' ENTERED AT 14:36:08 ON 01 AUG 2007

L85 19 S L54 AND L1-L29
 SEL RN

FILE 'REGISTRY' ENTERED AT 14:36:47 ON 01 AUG 2007

L86 30 S E1-E30
 L87 2 S L86 AND L33-L35,L42
 L88 3 S L86 AND (I/ELS OR (?IODI? OR ?IODO?)/CNS OR L36-L40)

FILE 'HCAPLUS' ENTERED AT 14:38:17 ON 01 AUG 2007

L89 4 S L87,L88 AND L85
 L90 5 S L78,L89
 L91 114 S L54 AND L51 (L) ANST+NT/RL
 L92 95 S L91 AND (L52 OR L53) (L)ANST+NT/RL
 L93 54 S L54 AND G01N/IPC, IC, ICM, ICS
 L94 122 S L92,L93,L90
 L95 43 S L94 AND PY<=2002 NOT P/DT
 L96 41 S L94 AND (PD<=20020404 OR PRD<=20020404 OR AD<=20020404) AND
 L97 84 S L95,L96
 L98 1 S L97 AND L69-L75
 L99 4 S L97 AND ?POTENIOM?
 L100 13 S L97 AND PH
 L101 20 S L97 AND L59

FILE 'REGISTRY' ENTERED AT 14:42:32 ON 01 AUG 2007

FILE 'HCAPLUS' ENTERED AT 14:42:32 ON 01 AUG 2007
L102 TRA L97 1- RN : 458 TERMS

FILE 'REGISTRY' ENTERED AT 14:42:34 ON 01 AUG 2007
L103 458 SEA L102
L104 458 S L102
L105 3 S L104 AND L33-L35,L42

FILE 'HCAPLUS' ENTERED AT 14:42:58 ON 01 AUG 2007
L106 3 S L105 AND L97
L107 2 S L106 AND L98-L101
L108 6 S L90,L107
L109 26 S L98-L101,L106 NOT L108
SEL AN 13 16-19,21,23-26
L110 10 S L109 AND E31-E50
L111 16 S L108,L110
L112 16 S L111 AND L1-L29,L44-L59,L65-L81,L85,L89-L101,L106-L111
L113 15 S L112 AND (?IODO? OR ?IODI? OR ?MOLYBD? OR KI OR POTASSIUM IOD
L114 9 S L112 AND (PH OR BUFFER? OR REDOX?)
L115 6 S L112 AND G01N/IPC,IC,ICM,ICS
L116 3 S L112 AND L43
L117 5 S L112 AND (PT OR AG OR C OR ?PLATINUM? OR ?GOLD? OR ?CARBON?)
L118 16 S L112-L117
L119 7 S L118 AND PY<=2002 NOT P/DT
L120 6 S L118 AND (PD<=20020404 OR PRD<=20020404 OR AD<=20020404) AND
L121 13 S L119,L120
L122 3 S L118 NOT L121

FILE 'HCAPLUS' ENTERED AT 14:52:51 ON 01 AUG 2007

FILE 'WPIX' ENTERED AT 14:53:34 ON 01 AUG 2007
L123 2457 S L45 OR L46 OR L47 OR L48 OR L49 OR L50
E PERACETIC/CN
L124 1 S E4,E5
L125 388 S ACETYL HYDROPEROXIDE OR PERACETATE OR PER ACETATE OR PERSTERI
L126 1203 S R00453/DCN OR 0453/DRN
L127 3084 S L123,L125,L126
L128 42055 S L53
E HYDROGEN PEROXIDE/CN
L129 1 S E3
L130 19768 S R01732/DCN OR 1732/DRN
L131 1438 S L127 AND L128,L130
E POTASSIUM IODIDE/CN
L132 1 S E3
L133 2378 S R01715/DCN OR 1715/DRN
L134 9782 S (K OR POTASSIUM) () IODIDE OR KI
L135 17 S L131 AND L133,L134
L136 142 S L131 AND (?IODI? OR ?IODO?)
L137 146 S L135,L136
L138 7 S L137 AND ?MOLYBD?
L139 3 S L138 AND G01N/IPC,IC,ICM,ICS
L140 4 S L138 NOT L139
L141 12 S L137 AND S03-E?/MC
L142 9 S L141 NOT L138
SEL AN 5 9
SEL AN 8
L143 3 S L142 AND E1-E3
L144 6 S L139,L143
L145 6 S L144 AND L123-L144

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FILE 'WPIX' ENTERED AT 15:03:49 ON 01 AUG 2007

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